MULTI-PROCESSOR SYSTEM AND METHOD

OF ACCESSING DATA THEREIN


ABSTRACT OF THE DISCLOSURE

A multi-processor system (10) includes a plurality of processors (12). Each processor (12) has an integrated memory (16) operable to provide, receive, and store data. Each processor (12) also includes an integrated memory controller (30) in order to control read and write access to the integrated memory (16). Additionally, each processor (12) includes an integrated memory directory (18) operable to maintain a plurality of memory references to data within the integrated memory (16). The multi-processor system (10) also includes an external switch (14) coupled to each of the plurality of processors (12). The external switch (14) passes data to and from any of the plurality of processors (12). The external switch (14) has an external directory (22). The external directory (22) provides a memory reference for each of the plurality of processors (12) to remote data that is not provided within its own integrated memory directory (18).